

CLAIMS

What is claimed is:

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- 1 (1) A brightness controlling apparatus, comprising:

2 an evaluator for detecting a feature of a certain window displayed on a
3 screen of a display unit; and

Particulars

4 a display controller for controlling the brightness of said screen of said
5 display unit according to said feature of said window, detected by said
6 evaluator.

- 1 (2) The apparatus according to Claim 1;

2 wherein said evaluator detects a type of application to be displayed in said
3 window; and

4 said display controller controls said brightness of said screen of said display
5 unit according to said type of said application software detected by said
6 evaluator.

1 (3) The apparatus according to Claim 1;

2 wherein said evaluator detects a method by which data is displayed in said
3 window; and

4 said display controller controls the brightness of said screen of said display
5 unit according to said method by which data is displayed in said window,
6 detected by said evaluator.

(4) The apparatus according to Claim 1;

wherein said evaluator calculates the display brightness in said window according to a draw signal issued to said window displayed on said screen of said display unit; and

5 said display controller controls the brightness of said screen of said display
6 unit according to said display brightness in said window, calculated by said
7 evaluator.

1 (5) The apparatus according to Claim 1;

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3 wherein said evaluator detects a feature of a focused window on said
4 screen, said focused window being selected from a plurality of windows
5 displayed on said screen of said display unit.

1 (6) The apparatus according to Claim 1;

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6 wherein said display controller sets the screen brightness of said display
unit in case the rate of the size of said window whose feature is detected by
said evaluator to the size of said screen of said display unit is over a certain
value.

1 (7) A brightness adjusting system, comprising:

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a display gradation calculator for calculating the display brightness in a specific area of an image displayed on the screen of a display unit; and

5 | a brightness adjuster for adjusting the screen brightness of said display unit
6 | according to said display brightness in said specific area, calculated by said
7 | display gradation calculator.

(8) The system according to Claim 7;

wherein said display gradation calculator calculates the display brightness in said specific area by converting the gradation of each RGB element in a draw signal of an image displayed in said specific area to a gray scale gradation.

1 (9) A computer system, comprising:

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- 2 a processor for executing an arithmetic operation; and
3 a display unit for displaying the result of said arithmetic operation executed
4 by said processor;

5 wherein said processor executes the following processings for:

6 {
7 detecting the display brightness in a certain window displayed on the screen
8 of said display unit; and

9 controlling said display unit so as to change the screen brightness of said
10 display unit according to said detected display brightness in said window;
11 and

12 said display unit changes said screen brightness under the control of said
13 processor.

1 (10) The computer system according to Claim 9;

2 wherein said processor is controlled by an operating system having a power
3 management function and controls said display unit with use of said power
4 management function of said operating system so as to change said screen
5 brightness of said display unit.

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- 1 (11) A liquid crystal display unit, comprising:
- 2 a liquid crystal display screen for displaying an image;
- 3
- 4 a back-light for lighting said liquid crystal display screen; and
- 5 a brightness controller for controlling the brightness of said back-light;
- 6 wherein said brightness controller executes processings for:
- 7 receiving a brightness control signal generated according to the display
8 brightness in a specific area calculated from a draw signal in an image in
9 said specific area, said image being selected from a plurality of images to be
10 displayed in said liquid crystal display screen; and
- 11 changing the brightness of said back-light according to said brightness
12 control signal.

1 (12) A brightness controlling method for controlling the screen brightness of a
2 display unit, wherein said method comprises:

3 a step of calculating the display brightness in a certain window displayed on
4 the screen of said display unit; and
5 a step of adjusting the brightness of the whole screen of said display unit
6 according to said calculated display brightness.

7 (13) The method according to Claim 12,

8 wherein said method further comprises a step of monitoring the state of
9 each window displayed on said screen of said display unit so as to detect a
10 focused window on said screen, and

11 said step of calculating said display brightness further comprises a step of
12 calculating the display brightness in said detected focused window.

- 1 (14) The method according to Claim 12;
- 2 wherein said step of calculating said display brightness further comprises:
- 3 a step of obtaining gradation information of each RGB element in a color
- 4 displayed in said window; and
- 5 a step of converting said obtained gradation of each RGB element to a gray
- 6 scale gradation so as to decide said converted gray scale gradation as the
- 7 display brightness in said window.

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1 (1.5) A computer software for enabling a computer to execute a predetermined
2 processing;

3 wherein said computer software comprises:

4 a processing for calculating the display brightness in a certain window
5 displayed on the screen of a display unit; and

a processing for controlling said display unit so as to change said screen brightness of said display unit according to said calculated display brightness.

(16) The software according to Claim 15;

wherein said processing for controlling said display unit so as to change said screen brightness of said display unit uses said power management function of said operating system.

3 wherein said computer software enables said computer to execute:

4 a processing for calculating the display brightness in a certain window
5 displayed on the screen of a display unit; and

a processing for controlling said display unit so as to change said screen brightness of said display unit according to said calculated display brightness.